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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/800,223	03/06/2001	Branko D. Kovacevic	ATI.0100430	3320

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EXAMINER

CHEN, ALAN S

ART UNIT	PAPER NUMBER
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2182

DATE MAILED: 02/09/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/800,223

Applicant(s)

KOVACEVIC, BRANKO D.

Examiner

Alan S Chen

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 06 March 2001.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 5-21 and 29-31 is/are pending in the application.
- 4a) Of the above claim(s) 1-4, 22-28, 32 and 33 is/are withdrawn from consideration.
- 5) ☒ Claim(s) 5-9 is/are allowed.
- 6) ☒ Claim(s) 10-21 and 29-31 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 06 March 2001 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- ☒ Notice of References Cited (PTO-892)
- ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____
- ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date _____
- ☐ Notice of Informal Patent Application (PTO-152)
- ☐ Other: _____

DETAILED ACTION

Election/Restrictions

1. Restriction to one of the following inventions is required under 35 U.S.C. 121:
 - I. Claims 5-9, 10-21 and 29-31 drawn to an invention, classified in class 710, subclass 60 pertaining to transfer rate regulation.
 - II. Claims 1-4, 22-26, 32 and 33, drawn to an invention, classified in class 710, subclass 57 pertaining to buffer fullness indication.
 - III. Claims 27-28, drawn to an invention, classified in class 710, subclass 52 pertaining to I/O data buffering.
2. Inventions I, II and III are related as combination and subcombination. Inventions in this relationship are distinct if it can be shown that (1) the combination as claimed does not require the particulars of the subcombination as claimed for patentability, and (2) that the subcombination has utility by itself or in other combinations (MPEP § 806.05(c)). In the instant case, the combination as claimed does not require the particulars of the subcombination as claimed because transfer rate regulation does not require fullness indication of the buffer (claims 1-4, 22-26, 32 and 33), but instead, the data rate is determined from comparison of two clocks (claims 5-9, 10-21 and 29-31). Furthermore, the system of claims 27-28 does not involve a change in data rate via clock comparison or buffer fullness. The subcombination has separate utility such as changing to a different data rate based on a fullness watermark on a buffer (claims 1-4, 22-26, 32 and 33), changing to a different data rate based on two reference clocks (claims 5-9, 10-21 and 29-31), or a multimedia system with a set transfer data rate (claims 27-28).

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3. Because these inventions are distinct for the reasons given above and have acquired a separate status in the art as shown by their different classification, restriction for examination purposes as indicated is proper.

4. During a telephone conversation with J. Gustav Larson (Reg. No. 39,263) on 02/01/2005 a provisional election was made with traverse to prosecute the invention of group I, claims 5-9, 10-21 and 29-31. Affirmation of this election must be made by applicant in replying to this Office action. Claims 1-4, 22-26, 27-28, 32 and 33 are withdrawn from further consideration by the examiner, 37 CFR 1.142(b), as being drawn to a non-elected invention.

Claim Objections

5. Claim 5 is objected to because of the following informalities: line 8, the word "clock" should be plural. Appropriate correction is required.

Claim Rejections - 35 USC § 102

6. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

7. Claims 10-21 and 29-31 are rejected under 35 U.S.C. 102(e) as being anticipated by Pat. No. 6,490,250 to Hinchley et al. (hereafter Hinchley).

8. As per claims 10 and 29, Hinchley discloses a method and computer readable medium comprising determining a desired bit-rate of a received transport stream (Fig. 9, 900 and Fig. 10, element 1000, the nominal data rate is a target rate chosen by a source to specify the maximum

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data rate for the stream, Column 8, lines 8-15); determining a current bit-rate of the received transport stream (Column 6, lines 28-60, data rate analyzers determine the precise data rate of transport stream); determine a throttle amount based on the desired bit-rate and the current bit-rate (Column 8, lines 45-65, number of blocks determined to be allocated or deallocated based on how much to increase or decrease the data rate, also shown in Fig. 11, element 1120, 1124, 1128 and Fig. 9 element 904 and 912, and Fig. 10, element 1008 and 1020); and providing an indicator requesting the throttle amount (conditional statements in Fig. 11 represent the indicator, whether to initiate the increase or decrease of the data rate).

9. As per claims 11 and 30, Hinchley claims 10 and 29, wherein the desired bit-rate is determined based on an amount of data between consecutive program clock references within the received transport stream (Column 6, lines 26-35, Hinchley specifically cites, "The data rate is analyzed by computing the number of bits transmitted over a given period of time", e.g., two consecutive time references are required, and this is the basis of determining whether the desired bit rate has been met).

10. As per claims 12, 13 and 31, Hinchley discloses claims 10 and 29, wherein the throttle amount is an amount of time to suspend a transmission of the received transport stream (Column 8, lines 30-40, the rates are reduced by adding a delay to the transport stream, e.g., suspending the time of reading pertinent data by injecting time delays, e.g., holding off reading of pertinent data).

11. As per claims 14 and 15, Hinchley discloses claim 10 wherein the desired bit rate and the current bit rate indicate a number of bits per unit time (Column 6, lines 36-35, the number of bits

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is measure over a time period, it is inherent the rate is in bits over unit time. Units can always be converted to milliseconds or microseconds, this is not novel).

12. As per claims 16-19, Hinchley discloses claims 10, wherein the indicator is a software/hardware signal and registers and interrupt (Hinchley is computer based system, software and hardware signals are inherent, signals are the basis of any causal event in a computer system. Registers and interrupts are fundamental to the CPU, Fig. 1, element 104, for devices to communicate to the CPU, it is inherent interrupts are used).

13. As per claims 20-21, Hinchley discloses claim 10 wherein the step of providing the indicator is only performed when there is a difference between the desired bit rate and actual bit rate (the desired bit rate is predetermined, Column 6, lines 27-35 and increase and decrease of actual bit rate initiates when there is a difference, Fig. 8-11).

Allowable Subject Matter

14. Claims 5-9 are allowed.

The following is the statement of reasons for the indication of allowable subject matter:

The prior art disclosed by the applicant and cited by the Examiner fail to teach or suggest, alone or in combination, a method comprising the steps of read data from a file, setting a transmit bit-rate, sending s data tram based on the data to a demux at the set transmit bit-rate, using two reference close to determine a number the number of transmitted bits, wherein the clock references are actually read from the transport stream, e.g., the clocks are part of the program stream, not a separate program clock; determining a desired transmit rate based on the two program clocks whereby the desired bit-rate is based on the desired elapsed time and the number of transmitted bits; and setting the transmit bit-rate to the desired bit rate.

Conclusion

15. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

The following patents are cited to further show the state of the art with respect to changing the data rate of an input data stream:

U.S. Pat. No. US005938749A to Rusu et al.

U.S. Pat. No. US006026075A to Linville et al.

U.S. Pat. No. US006622182B1 to Miller et al.

U.S. Pat. No. US006567409B1 to Tozaki et al.

U.S. Pat. No. US006636909B1 to Kahn et al.

16. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Alan S Chen whose telephone number is 571-272-4143. The examiner can normally be reached on M-F 8:30am - 5:30pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Jeffrey A Gaffin can be reached on (571) 272-4146. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).


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